

Abstract of the Disclosure

A digital receiver detects symbols in a baseband signal in a DS-CDMA network. The receiver includes multiple spaced apart antennas. A time-frequency rake receiver is connected to each of the antennas. An interference canceller is connected to each output of each of the rake receiver. Each interference canceller produces a contributing symbol in parallel. A diversity combiner determines a decision symbol corresponding to the baseband signal from the contributing symbols.